

**Work Order ID 82735****\*82735\***

Page 1

Thursday, April 05, 2012 1:00:19 PM

Item ID: D3697-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Tube Assembly  
Start Date: 4/5/2012 Start Qty: 6.00 **\*6\*** Cust Item ID:  
Required Date: 4/13/2012 Req'd Qty: 6.00 **\*6\*** Customer:  
Reference:

Approvals: Process Plan:                      Date: 2-04-5 Tooling:                      Date:                      Run Start **\*NR1\***  
QC:                      Date:                      SPC (Y/N):                      Date:                      Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D3697	Rev B								

130		0.00							
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**\*130\*** Large Fab                                                               

Large Fab Memo 0.00

Large Fab 1- cut at 72.00" as per dwg D3697

2- form and trim tube as per dwg D3697 using DT90033-deburr

3-weld D3697-3/-4 and D3797-1 on tube D3697-1 as per dwg D3697 using DT9003 welding jig

4-drill holes in tube in 5 pls as per dwg D3697

140	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
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**\*140\***                                                               

QC Memo 0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Page 2

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 Revision ID: Stop **\*NS2\***  
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 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 <b>*150*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00 0.00							 12/07/13
160 <b>*160*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00 0.00							2 7/16 12.7-16
170 <b>*170*</b> QC Quality Control	QC3- Inspect Part Finish  Memo	0.00 0.00							 12/07/16

W/O:		WORK ORDER CHANGES					
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Thursday, April 05, 2012 1:00:19 PM

**\*82735\***

Page 3

Item ID: D3697-041

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Tube Assembly

Start Date: 4/5/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 4/13/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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180

Identify as per dwg & Stock Location: **GL**

0.00

**\*180\***

Packaging

Memo

0.00

Packaging

190

QC21- Final Inspection - Work Order Release

0.00

**\*190\***

QC

Memo

0.00

Quality Control

12/17/20 JJ  
MJ 12/07/10

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**NOTE:** Date & initial all entries

Thursday, April 05, 2012 1:00:23 PM

**\*82735\***

**\*D3697-041\***

**Required Qty: 6.00**

**Comments:** IPP Rev:A 08-04-25 new issue DD verified by:EC  
IPP Rev:B 08-07-14 revB as per dwg DD verified by:ec

[illegible]

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

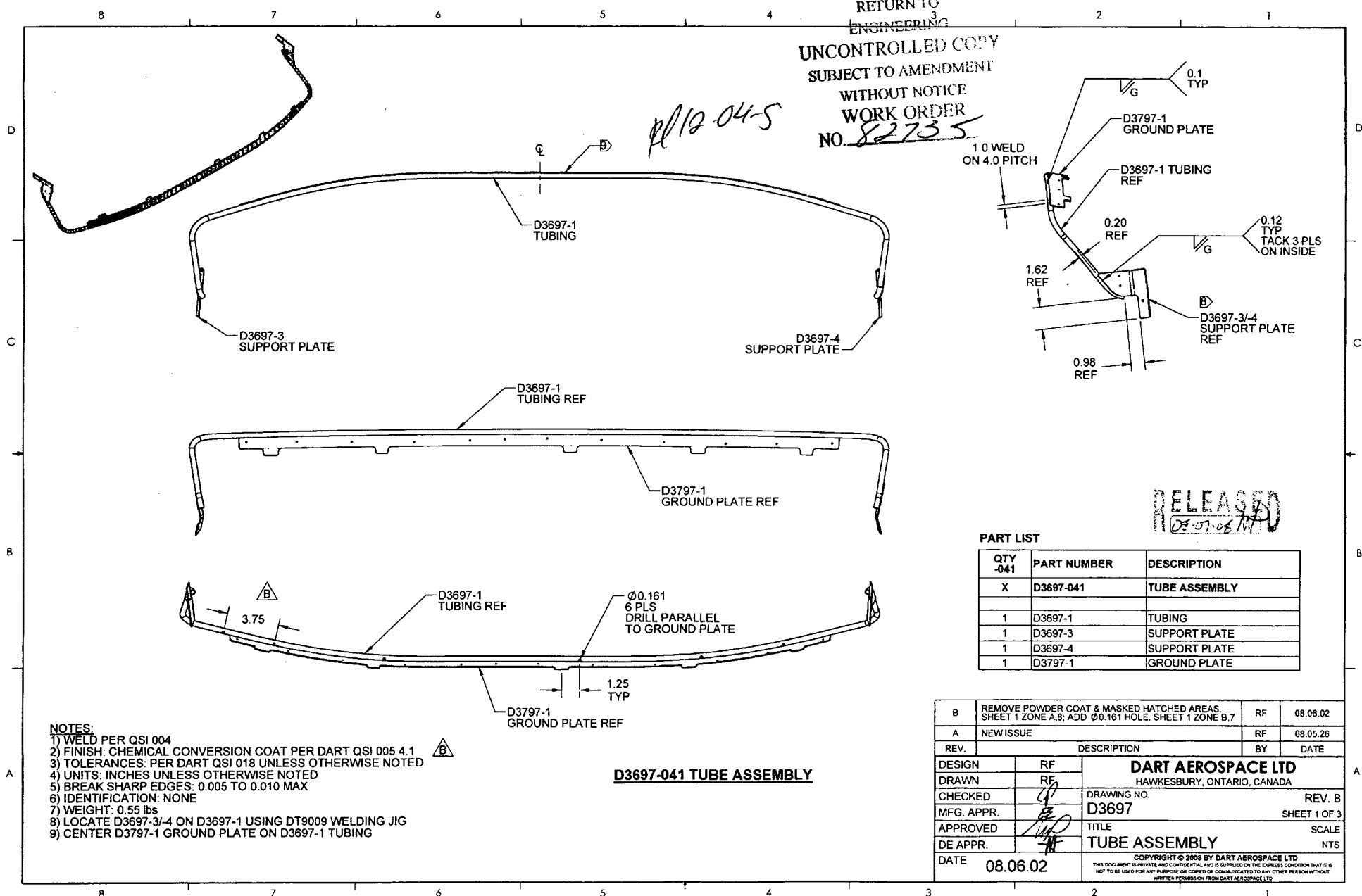


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UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 82735

*PL 12-04-5*



- NOTES:
- 1) WELD PER QSI 004
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 0.55 lbs
  - 8) LOCATE D3697-3/4 ON D3697-1 USING DT9009 WELDING JIG
  - 9) CENTER D3797-1 GROUND PLATE ON D3697-1 TUBING

**D3697-041 TUBE ASSEMBLY**

RELEASED  
05-07-06 MPA

**PART LIST**

QTY -041	PART NUMBER	DESCRIPTION
X	D3697-041	TUBE ASSEMBLY
1	D3697-1	TUBING
1	D3697-3	SUPPORT PLATE
1	D3697-4	SUPPORT PLATE
1	D3797-1	GROUND PLATE

B	REMOVE POWDER COAT & MASKED HATCHED AREAS, SHEET 1 ZONE A,8; ADD Ø0.161 HOLE, SHEET 1 ZONE B,7	RF	08.06.02
A	NEW ISSUE	RF	08.05.26
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED	<i>[Signature]</i>		
MFG. APPR.	<i>[Signature]</i>		
APPROVED	<i>[Signature]</i>		
DE APPR.	<i>[Signature]</i>		
DATE	08.06.02		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA  
DRAWING NO. **D3697**  
TITLE **TUBE ASSEMBLY**  
SCALE NTS  
REV. B  
SHEET 1 OF 3  
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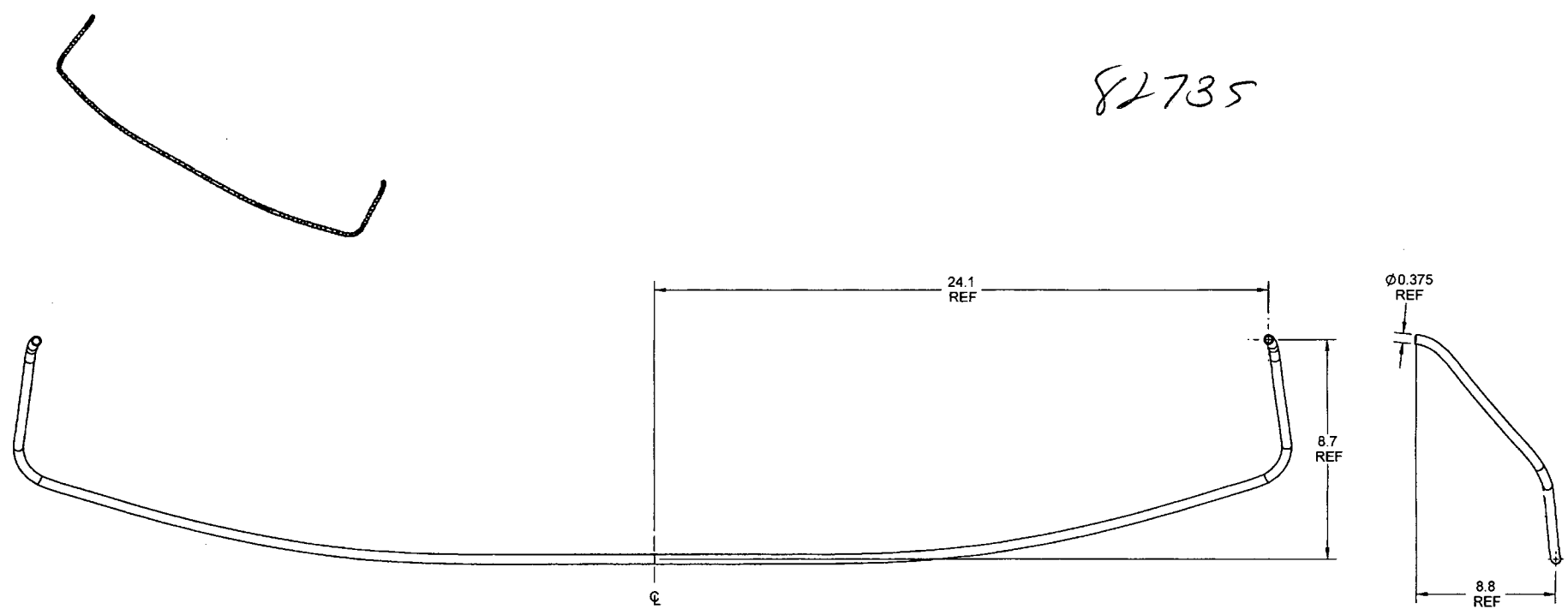
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**NOTE:** Date & initial all entries

82735



**D3697-1 TUBING**

**NOTES:**

- 1) MATERIAL: 6061-T6 OR 6061-T62 (WW-T-700/6) ALUMINUM TUBING Ø0.375 x 0.049 WALL (REF. DART SPEC. M6061T6T0.375W0.049)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.26 lb
- 8) FABRICATE USING TEMPLATE DT9003

RELEASED  
06.07.06

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO. <b>D3697</b>	REV. B
MFG. APPR.	RF		SHEET 2 OF 3
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	<b>TUBE ASSEMBLY</b>	NTS
DATE	08.06.02	<small>COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

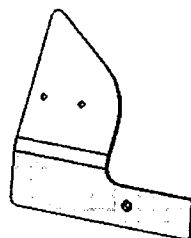
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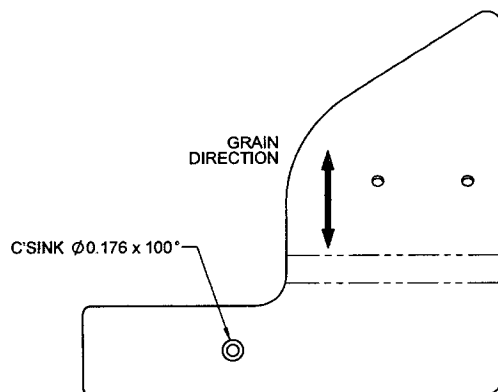
**NOTE:** Date & initial all entries



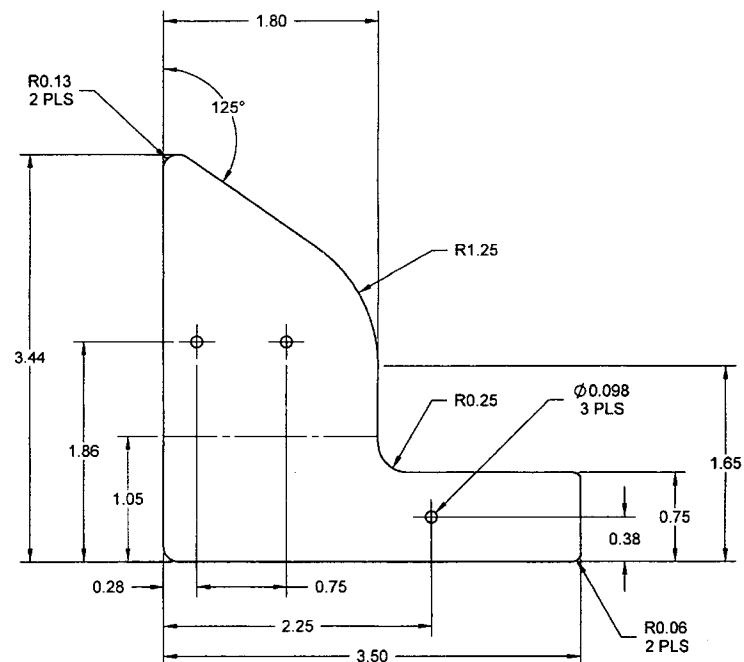
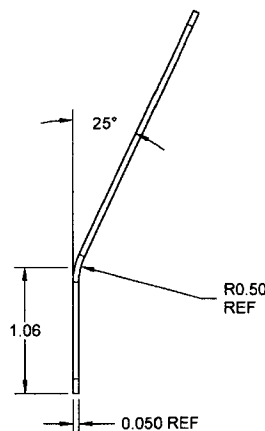
**D3697-3 SUPPORT PLATE (LH SHOWN)**



**D3697-4 SUPPORT PLATE (RH SHOWN)**



**D3697-3 SUPPORT PLATE (LH SHOWN)**  
**D3697-4 SUPPORT PLATE OPPOSITE)**  
 (MAKE FROM D3697-3F FLAT PATTERN)



**D3697-3F FLAT PATTERN**

**NOTES:**

- 1) MATERIAL: 6061-T6 (QQ-A-250/11) SHEET 0.050 THICK (REF. DART SPEC. M6061T6S.050)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.03 lbs

DESIGN	RF	<b>DART AEROSPACE LTD</b>	
DRAWN	RE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D3697	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	TUBE ASSEMBLY	NTS
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RELEASED  
 08-07-02

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